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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/703,802	11/02/2000	Naoki Koga	43890-455	2159

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McDermott Will & Emery
600 13th Street NW
Washington, DC 20005-3096

EXAMINER

KANG, PAUL H

ART UNIT	PAPER NUMBER
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2144

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/29/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 09/703,802	Applicant(s) KOGA ET AL.	
	Examiner Paul H. Kang	Art Unit 2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22, 29 and 30 is/are rejected.
- 7) ☒ Claim(s) 23-28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed October 10, 2006 have been fully considered but they are not persuasive. The applicants argued in substance that:

“... Kriz does not disclose or suggest a controller which transmits and receives information between said first and second internal interface units. That is, the “high bandwidth direct wired connections” disclosed in Kriz, which the Examiner apparently relies on as a different physical layer than the wireless communication between the routers, are related to communication between the routers and other independent devices rather than communication between the routers (*see, e.g.*, col. 5, lines 6-9 for router connection to controller; col. 5, lines 24-29 for connection to keypad/computer, etc.).

“Accordingly, at best, the proposed combination would result in an internal network in Akatsu in which the internal interface units all communicate between each other using the same wireless physical layer (similar to “hub” arrangement described on page 6, lines 21-23 of Applicant’s specification). Indeed Kriz expressly discloses that the “routers communicate with each other over a relatively high bandwidth, using unlicensed Industrial Scientific Medical (ISM) band spread spectrum signal processors or transceivers such as those which operate in the 918 MHz, 2.4 GHz and 5.8 GHz bands of frequencies” (col. 6, lines 17-21). As such, the cited prior art does not suggest, nor enable, communication between two different physical layers (e.g. similar to “bridge arrangement described on page 6, lines 23-24 of Applicants’ specification), whereby, for example, different protocols can be configured to communicate with one another (e.g. microwave <-> TV, etc.).” See Remarks, pages 10-11.

The examiner respectfully disagrees with the applicants’ interpretation of the prior art of record. Atkatsu teaches a networked home entertainment system having multiple devices connected to the home network. These networked devices are also connected to an external network via home gateway. However, Atkatsu does not explicitly teach a second type of physical

Art Unit: 2144

layer connection and a corresponding interface unit to enable communication with the first physical layer. Kriz was relied upon for a system having two types of physical layer connections.

Applicants argue that in Kriz, the two types of physical layer connections (wired and wireless), do not communicate with each other. In other words, applicants allege wired devices communicate only with other wired devices, and wireless devices communicate only with wireless devices. This is an incorrect interpretation of the prior art. Firstly, Kriz teaches a communication network for connecting various devices to be monitored and controlled centrally. For instance, in order for device 134 (fig. 1) to be controlled and monitored, data must traverse over router 122, router 120, router 118, router 114 to controller 112 and to cellular phone/PCS comm. device 138 for user interface. It is clear that communication in this network must traverse over multiple types of physical layer connections.

Allowable Subject Matter

2. Claims 23-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

Art Unit: 2144

skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akatsu et al., U.S. Patent No. 6,505,255 in view of Kriz, U.S. Patent No. 7,027,416 B1.

4. As per claims 1 and 12, Akatsu discloses a network connection apparatus comprising: at least one external interface unit including at least one physical layer for connecting to an external network (Akatsu, col. 6, lines 40-67);

a first internal interface unit including a first type of physical layer for connecting to an internal network (Akatsu, col. 6, lines 40-67); and

a controller for controlling said at least one external interface unit and said plurality of first interface units (the home gateway 504 controls home network devices and enables communication to the external network or to internal the internal network, see Akatsu, col. 7, line 21 – col. 8, line 2).

However, Akatsu does not explicitly teach a second internal interface unit including a second type of physical layer, which is different from said first type of physical layer, for connecting to the internal network, wherein one of said first interface units is capable of independent operation from said at least one external interface unit, and said controller transmits and receives information between said first and second internal interface units.

In the same field of endeavor, Kriz teaches a second internal interface unit including a second type of physical layer, which is different from said first type of physical layer, for connecting to the internal network, wherein one of said first interface units is capable of independent operation from said at least one external interface unit, and said controller transmits

Art Unit: 2144

and receives information between said first and second internal interface units (Kriz teaches a home network wherein routers enable computers to connect to the network via high bandwidth direct wired connections as well as wireless connections; Kriz, col. 5, lines 1-32).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated the home network as taught by Kriz into the network of Akatsu-Kriz for the purpose of establishing a local area network enabling various types of devices to access the network such as wireless and wired devices.

5. As to claim 2, Akatsu-Kriz teaches the network connection apparatus wherein at least one of said second interfaces units is a detachable module (See Akatsu, Figure 5 Item 534).

6. As to claim 3, Akatsu-Kriz teaches the network connection apparatus wherein said module is detachable through a slot conforming to a PC card standard (See Akatsu, Figure 5 Item 564).

7. As to claim 4, Akatsu-Kriz teaches the network connection apparatus wherein the information to be transmitted and received between said first interface unit and one of said second interface units, or between a plurality of said second interface units includes isochronous data (See Akatsu, col. 7, line 21 – col. 8, line 2 and col. 8, lines 60-67).

8. As to claim 5, Akatsu-Kriz teaches the network connection apparatus wherein said second interface unit has a transmission speed of 10 Mbps or more (See Akatsu, Column 6, Lines

Art Unit: 2144

55-67).

9. As to claim 6, Akatsu-Kriz teaches the network connection apparatus wherein said controller exclusively controls said second interface unit (See Akatsu, Column 6, Lines 55-67).

10. As to claim 7, Akatsu-Kriz teaches the network connection apparatus wherein said at least one second interface unit has buffer memory Peed lessening me for reducing variation in lessee transmission speed difference (See Akatsu, Column 7, lines 4-18).

11. As to claim 8, Akatsu-Kriz teaches the network connection apparatus wherein said first interface unit incorporates a cable modem (Akatsu, col. 6, lines 40-67 and col. 7, lines 1-18).

12. As to claim 9, Akatsu-Kriz teaches the network connection apparatus wherein said first interface unit uses a telephone line and incorporates a modem (Akatsu, col. 6, lines 40-67 and col. 7, lines 1-18).

13. As to claim 10, Akatsu-Kriz teaches the network connection apparatus wherein one of said second interface units is a wireless interface unit separated from a toe main body of the network connection apparatus (Akatsu, col. 6, lines 40-67 and col. 7, lines 1-18).

14. As to claim 11, Akatsu-Kriz teaches the network connection apparatus wherein said wireless interface unit may be provided with an antenna (Akatsu, col. 6, lines 40-67 and col. 7,

Art Unit: 2144

lines 1-18).

15. As to claim 13, Akatsu-Kriz teaches the network connection apparatus of claim 12, further comprising a connection request information saver for saving the connection request information from a client connected to said second interface unit, wherein said controller acquires the information to be saved in said acquired information saver by accessing the external network through said first interface unit on the basis of the information stored in said connection request information saver (Akatsu, column 9, 1-30).

16. As to claim 14, Akatsu-Kriz teaches the network connection apparatus, further comprising a display unit, wherein said display unit indicates storage of the information in said acquired information saver (Akatsu, column 14, lines 35-65).

17. As to claim 15, Akatsu-Kriz teaches the network connection apparatus, wherein the information stored in said acquired information saver is isochronous data (Akatsu, column 10, lines 1-9).

18. As to claim 16, Akatsu-Kriz teaches the network connection apparatus, wherein said acquired information saver is a detachable module (Akatsu, Figure 5, item 534).

19. As to claim 17, Akatsu-Kriz teaches the network correction apparatus, further comprising an access information applying unit for providing a client connected to said second interface unit

Art Unit: 2144

with information about access, wherein said controller further provides said client with the information about access by said access information applying unit when it is recognized that the client is connected to said second interface unit (Akatsu, column 12, lines 35-64).

20. As to claim 18, Akatsu-Kriz teaches the network connection apparatus of, wherein the information about access is at least IP address (Akatsu, column 12, lines 35-64).

21. As to claim 19, Akatsu-Kriz teaches the network connection apparatus, wherein the number of EP addresses is variable, and the number of connected clients is controlled (Akatsu, column 12, lines 35-67 and column 13, lines 1-37).

22. As to claim 20, Akatsu-Kriz teaches the network connection apparatus, further comprising access information acquiring unit for acquiring information about access from an Internet service provider connected through said first interface unit, wherein said controller further acquires the information about access from said access information acquiring unit when it is recognized that said first interface unit is connected to the Internet service provider (Akatsu, column 12, lines 35-67 and column 13, lines 1-37).

23. As to claim 21, Akatsu-Kriz teaches the network connection apparatus, wherein said access information acquiring unit acquires the information about access from said Internet service provider, relating to media access control (MAC) address of the client connected to said

Art Unit: 2144

second interface unit (Akatsu, column 12, lines 35-64).

24. As to claim 22, Akatsu-Kriz teaches the network connection apparatus, wherein the information about access is at least IP address (Akatsu, column 12, lines 35-64).

25. As to claims 29 and 30, Akatsu-Kriz teach the apparatus wherein said first type of physical layer is one of Ethernet, telephone line, optical fiber, coaxial cable, power line, and wireless device (Akatsu, col. 6, lines 40-67 and Kriz, col. 5, lines 1-32).

Relevant Prior Art

26. The following references are cited as being relevant but not relied upon in the present rejection:

- | | | |
|----|-------------------|-----------------------|
| a. | Lemilainen et al. | US Pat. No. 6,681,259 |
| b. | Blewett et al. | US Pat. No. 7,130,612 |
| c. | Doyle et al. | US Pat. No. 7,099,295 |

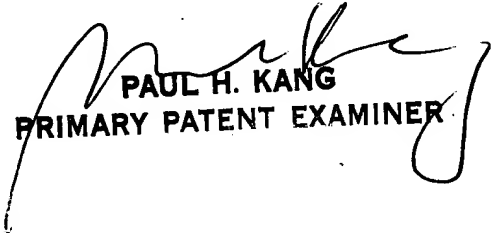
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul H. Kang whose telephone number is (571) 272-3882. The examiner can normally be reached on 9 hour flex. First Friday.

Art Unit: 2144

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


PAUL H. KANG
PRIMARY PATENT EXAMINER